

Title 15

DEPARTMENT OF AGRICULTURE

Subtitle 20 SOIL AND WATER CONSERVATION

15.20.12 Agricultural Nutrient and Sediment Credit Certification Program

Authority: Agricultural Article, §§2-103(b), 8-902, and 8-903, Annotated Code of Maryland

Notice of Proposed Action

[15-401-P]

The Secretary of Agriculture proposes to adopt new Regulations .01—.11 under a new chapter, **COMAR 15.20.12 Agricultural Nutrient and Sediment Credit Certification Program**.

Statement of Purpose

The purpose of this action is to promulgate regulations to implement the Agricultural Nutrient and Sediment Credit Certification Program, a voluntary, market-based water quality trading program which can provide a funding mechanism for natural resource conservation practices that reduce nutrient and sediment pollution in the Chesapeake Bay and its tributaries. This action explains the requirements, standards, and procedures for the verification, certification, and registration of nutrient and sediment credits; the qualifications and protocols for the professionals approved to conduct eligibility assessments and compliance reviews; and the responsibilities and prerogatives of the Maryland Department of Agriculture in administering the Program.

Comparison to Federal Standards

There is no corresponding federal standard to this proposed action.

Estimate of Economic Impact

I. Summary of Economic Impact. The development of a robust public/private marketplace for nutrient and sediment credits is expected to generate supplemental income for Maryland’s farm community and create new business and employment opportunities for individuals and companies offering the services needed to support this emerging industry.

II. Types of Economic Impact.	Revenue (R+/R-)	Expenditure (E+/E-)	Magnitude
A. On issuing agency:	(E-)		Nominal
B. On other State agencies:	(E-)		Nominal
C. On local governments:	NONE		
	Benefit (+)		
	Cost (-)		Magnitude
D. On regulated industries or trade groups:			
Benefit/cost		NONE	
E. On other industries or trade groups:			
Benefit/cost		NONE	
F. Direct and indirect effects on public:			
Benefit	(+)		Moderate

III. Assumptions. (Identified by Impact Letter and Number from Section II.)

- A. Expense to issuing agency is nominal as administration and other program expenditures are funded by federal grant monies.
- B. The Maryland Department of the Environment issues, amends, or renews the permits of regulated and other entities that would be prospective buyers of certified agricultural credits. Additional costs are projected to be nominal and the workload can be handled by existing agency staff.
- C. Nonpoint source trading for compliance is not permissible under current policies, but a proposal allowing voluntary trading between sectors to help the State achieve its 2025 Total Maximum Daily Load commitments has recently been endorsed by the

Bay Cabinet. While the guidelines and mechanics for such trades still need to be developed, the proposal would allow the urban/suburban sector, including septic systems and both non-MS4 and Phase II MS4 permitted jurisdictions and facilities to purchase agricultural credits to meet all or a portion of their nitrogen load reduction targets.

D. Since participation in the Program is voluntary, an analysis of credit prices and associated annual verification expenses versus available alternatives will determine whether regulated entities choose to purchase agricultural credits. Credit purchases, however, are likely to be less expensive than the costs associated with upgrading existing facilities or constructing new ones, and these potential savings could provide financial benefits to both the buyer and the seller.

E. The decision-making process for non-regulated entities considering the voluntary purchases of credits would be similar to that outlined above although not-for-profit organizations making retirement purchases might be able to offset the expense of buying credits through donations. Farmer owners and operators who sell credits would be beneficiaries as would other businesses, both large and small. The assessment and verification of credits, annual inspections, the design and installation of structures and systems, and the acquisition, management, and re-sale of credits are expected to become sources of income for consultants, technical advisors, engineers, contractors, aggregators, and brokers.

F. The public would benefit from water and air quality improvements by using credit purchases as an alternative approach for meeting regulatory mandates.

Economic Impact on Small Businesses

The proposed action has a meaningful economic impact on small business. An analysis of this economic impact follows.

Although the development of a robust trading marketing for agricultural nutrient and sediment credits could have a significant impact on small businesses over time, there are too many unknowns at the present to make any projections. Both the growth of the marketplace and the magnitude of its impact will depend on a number of inter-related factors, among them: demand, the level of participation, credit price, credit duration, trading geography, and scale.

Impact on Individuals with Disabilities

The proposed action has no impact on individuals with disabilities.

Opportunity for Public Comment

Comments may be sent to Susan Payne, Program Coordinator, Maryland Department of Agriculture, 50 Harry Truman Parkway, Annapolis, Maryland 21401, or call 410-841-5897, or email to susan.payne@maryland.gov, or fax to 410-841-5914. Comments will be accepted through January 27, 2016. A public hearing has not been scheduled.

.01 Scope.

A. *This chapter establishes the requirements and standards for the generation and certification of nonpoint source nutrient and sediment credits on agricultural land under the Agricultural Nutrient and Sediment Credit Certification Program.*

B. *The purpose of the Program is to reduce the amount of nitrogen, phosphorus, and sediment entering the Chesapeake Bay and its tributaries through a form of water quality trading utilizing a market-based strategy.*

C. *This chapter also establishes the protocols for approving professionals qualified to evaluate and review agricultural operations for eligibility and compliance with the Program.*

.02 Definitions.

A. *In this chapter, the following terms have the meanings indicated.*

B. *Terms Defined.*

(1) *“Aggregator” or “Broker” means a person who collects and compiles credits from individual agricultural non-point sources to resell them.*

(2) *“Agronomic Practice” means an annual crop or soil practice that reduces or minimizes nutrient or sediment loss. Examples include but are not limited to cover crops, conservation tillage, reductions in nitrogen fertilizer application, and precision agriculture.*

(3) *“Agricultural Land” or “Farm” means a parcel of land which has an Agricultural Use Assessment as determined by the Department of Assessments and Taxation.*

(4) *“Agricultural operation” or “Operation” means a business or activity where a person tills, crops, keeps, pastures, or produces an agricultural product, including but not limited to livestock, poultry, plants, trees, sod, food, feed or fiber by in ground, out-of-ground, or other culture.*

(5) *“Animal Waste Management System Plan” means a plan developed and approved by a local soil conservation district to identify and address the management of animal waste generated on an agricultural operation, including operation and maintenance guidelines.*

(6) *“Baseline” means the level of nutrient and sediment reduction, expressed as an annual nitrogen, phosphorus, or sediment per-acre loading rate that an agricultural nonpoint source seller’s operation is required to achieve before the seller becomes eligible to enter the trading market and sell credits.*

(7) *“Best Management Practice” or “BMP” means an agronomic, conservation, or pollution control practice, installation, or structure that manages soil loss, nutrients, animal wastes, or agricultural chemicals so as to minimize their movement into the waters of the State.*

(8) *“Category 1 Practice” means a BMP as determined by the Department that is currently in widespread use, with fully documented installation and maintenance specifications and well-established and understood nutrient removal efficiencies.*

(9) "Category 2 Practice" means a BMP that is currently in use and is acceptable by the Department but nutrient removal efficiencies are not well established, or a practice required by state regulation.

(10) "Category 3 Practice" means a new or innovative technology or practice as determined by the Department that is not in widespread use and for which no recognized nutrient removal efficiency exists.

(11) "Credit" means a pollution reduction credit or the unit of trade that is equal to one pound of nitrogen, phosphorus, or sediment delivered to the main-stem of the Chesapeake Bay per year.

(12) "Department" means the Maryland Department of Agriculture.

(13) "Land Conversion Practices" means a change in management on an agricultural operation that involves a shift to less nutrient-intensive agricultural land use, including but not limited to the installation of forest or grass buffers, the retirement of highly erodible lands, or the switch to alternative or perennial crops.

(14) "Maryland Nutrient Tracking Tool" or "MNTT" means a Department approved online performance-based calculation platform that enables users to analyze agricultural parcels and their management to determine eligibility and credit generation potential for participation in the Program.

(15) "Nonpoint Source" means a source of pollution that is not from a single point of origin or from a specific outlet.

(16) "Nutrient and Sediment Credit Certification Program" or "Program" means the program established under this Chapter giving the Maryland Department of Agriculture the authority to certify, verify, and register agricultural nonpoint source nutrient and sediment credits in support of market-based trading activities to fund agricultural practices that enhance water or air quality or both by further reducing nutrient or sediment runoff, movement, or emissions below baseline.

(17) "Nutrient Management Plan" or "NMP" means a plan that complies with the requirements of COMAR 15.20.07 and 15.20.08 that is prepared by a certified nutrient management consultant to manage the amount, placement, timing, and application of manure, fertilizer, biosolids, or other plant nutrients in order to:

(a) Minimize nutrient loss or runoff; and

(b) Maintain the productivity of soil when growing agricultural products.

(18) "Nutrient or Sediment Reduction" means the difference between the nutrient and sediment loads delivered to the mainstem of the Chesapeake Bay achieved by implementation of best management practices and the current load after meeting eligibility requirements.

(19) "Operator" means a person who is the owner of an agricultural operation or a lessee who has the owner's expressed consent to operate or manage an agricultural operation.

(20) "Person" means the State, any county, municipal corporation, or other political subdivision of the State, or any of their units, or an individual, receiver, trustee, guardian, executor, administrator, fiduciary, or representative of any kind, or any partnership, firm, association, public or private corporation, or any other entity, unless otherwise provided.

(21) "Soil Conservation and Water Quality Plan" or "SCWQP" means a farm plan approved by a local soil conservation district to minimize soil erosion and to minimize the movement of sediment, animal waste, nutrients, or agricultural chemicals into waters of the State.

(22) "Structural Practice" means a practice acceptable by the Department that reduces or minimizes nutrient or sediment loss through the installation or construction of physical edifices, barriers, or systems to trap, block, or filter pollutants, including but not limited to manure sheds, fencing, grassed waterways, and constructed wetlands.

(23) "Total Maximum Daily Load" or "TMDL" means a limit set by U.S. Environmental Protection Agency in accordance with Clean Water Act requirements that establishes the amount of a particular pollutant, in this case nitrogen, phosphorus, or sediment inputs, that a water body can assimilate and still meet water quality standards.

(24) "Watershed Implementation Plan" or "WIP" means the plan required and approved by the U.S. Environmental Protection Agency for achieving the pollution reduction goals and allocations necessary in implementing the Chesapeake Bay TMDL.

.03 Eligibility for Credit Certification.

A. Except as provided by this regulation, the following persons are eligible to have credits certified by the Department in support of nutrient and sediment trading activities:

(1) An owner or lessee, with owner's consent, who operates an agricultural operation and who demonstrates that:

(a) The agricultural management and BMPs implemented on the operation enables that operation to meet baseline requirements pursuant to Regulation .04 of this chapter;

(b) A current Nutrient Management Plan is being implemented in accordance with COMAR 15.20.07 and 15.20.08;

(c) A SCWQP has been developed and approved for the agricultural operation and all implemented BMPs are documented, operated, and maintained in accordance with the SCWQP;

(d) An adequate manure storage and runoff system is maintained as required in an Animal Waste Management System Plan, or in the case of a Confined Animal Feeding Operation, a Comprehensive Nutrient Management Plan or SCWQP and NMP as required by permit;

(e) The lessee has been granted authority for control of the land for the term of the credit certification; and

(f) The operation is in compliance with all applicable local, State, and federal laws, regulations, and programs.

(2) A broker or an aggregator, as defined by this chapter, who provides proof of the following to the Department:

(a) Demonstration of permission by the credit generator to submit for certification and sell nutrient and sediment credits; and

(b) Demonstration that the credit generator meets all requirements as provided by this chapter.

(3) Any person engaged in reducing impacts of agricultural nutrients or sediment to the environment and who provides proof of the following to the Department:

(a) Demonstration of permission by the landowner to conduct nutrient or sediment removal activities; and

(b) Demonstration that the credit generator is conducting nutrient or sediment removal activities in accordance with applicable local, state, and federal laws, regulations, and programs.

.04 Baseline Requirements.

A. A person may not generate nutrient or sediment credits, unless that person's agricultural operation meets a baseline level of nutrient or sediment reduction which is the more stringent of either the applicable Chesapeake Bay or local TMDL as calculated on the entire farm in aggregate using the MNTT analysis.

B. A person may meet the baseline nutrient reduction requirement by using only the following:

(1) Current agronomic practices, including cropping rotation as documented in the operation's current NMP and SCWQP; and

(2) Existing operator adopted or installed structural or other BMPs; or

(3) Existing structural or other BMPs implemented with federal, State, or private cost-share assistance.

.05 Agricultural Nutrient and Sediment Credit Generation.

A. If the provisions of §B are met, agricultural nutrient and sediment credits may be generated from any of the following improvements that the Department determines will provide additional reductions in the discharge of farm nutrients and/or sediment:

(1) Existing or planned agronomic practices;

(2) Land conversion practices; or

(3) Installation of structural practices.

B. Acceptable practices shall be consistent with the following:

(1) The practice does not result in the idling of whole or substantial portions of productive farmland to provide nutrient credits as determined by the Department after considering location, soil type, slope, and potential soil loss or erodibility;

(2) The practice is approved by a local soil conservation district but was not implemented using state or federal cost-share monies, or private cost-share monies identified by the Department, and is currently maintained by the owner/operation at his own expense; or

(3) The practice was implemented through a state or federal cost-share program, or county mitigation banking program, or with private cost-share monies identified by the Department, but has exceeded its specified lifespan as determined under the cost-share contract and is deemed by the Department as now being properly maintained by the owner/operator at his own expense.

C. Credits generated on the agricultural operation will be calculated by the Department as follows.

(1) Category 1 Practices will be calculated using the MNTT.

(2) Category 2 Practices require review by an independent technical panel established by the Department to ascertain the appropriate nutrient and sediment removal efficiencies and determine effectiveness estimates.

(3) Category 3 Practices, together with specifications for installation, operation, maintenance, and monitoring, require scientific analysis and technical review by an independent technical panel established by the Department to evaluate nutrient and sediment removal efficiencies and determine best practice definitions and effectiveness estimates.

.06 Lifespan of Credits.

A. A practice may only generate credits when it is installed or placed into operation and all appropriate operation and maintenance guidelines are being followed. The Department shall consider the total estimated annual credits generated from any practice installed and given final certification within a given year to be generated the following year starting January 1.

B. Credits may be certified for more than 1 year but shall only be applied annually.

C. The Department shall include the number of years a credit is valid as part of the credit registration.

.07 Approval and Registration of Credits.

A. A person who applies to the Department for approval of agricultural nonpoint source nutrient or sediment credits shall:

(1) Complete and sign a Certification and Registration Form provided by the Department and furnish a copy of the Farm Summary Worksheet generated by MNTT;

(2) Provide a copy of the current NMP; and

(3) Provide a copy of the current SCWQP with a map identifying the location and boundaries of the operation and showing field identification numbers, field acreage, and the location of BMPs, together with the specifics of any credit generation proposal.

B. The Department shall review each application to determine the following:

(1) That the baseline requirements are met as provided in this chapter;

(2) That all credit generating improvements qualify for certification;

(3) That both the landowner and the operator have consented in writing to all of the requirements under this chapter, including but not limited to inspection or suspension or revocation of credits by the Department and the waiver of confidentiality for any information the operation submits to the Department, including but not limited to the operator's NMP and SCWQP;

(4) That all legal and regulatory compliance requirements are met; and

(5) That credit calculations and all other information are correct and that the applicant has complied with all the requirements of this chapter.

C. The Department or its designee shall visit any farm operation to verify the baseline requirements and that the applicant's credit generation proposal is effective and appropriate in reducing the discharge of nutrients from the farm. In addition, credits certified pending implementation of a BMP or other improvement are subject to further inspection to verify that the proposed generating practice is in place and functioning correctly.

D. Proposals for improvements for generating credits will be reviewed by the Department and may include requirements for demonstration projects, the collection of sufficient data to evaluate results, and any other information needed to determine the validity of the credits. In some cases, development of the specifications and certification of the credits could be a multi-year process.

E. The Department may issue a pre-certification of credits based on pending implementation of the proposed improvements.

F. The Department shall only certify credits once the practice or practices generating those credits are installed and fully operational.

G. Upon approval of any application for agricultural nutrient and sediment credits, the Department shall assign each credit a unique registration number and provide for their registration on the Department's online trading registry.

H. The Department shall document the basis for denying an application and provide this information in writing to the applicant.

I. As required by law, all records concerning the certification of credits shall be maintained by the Department and shall be made available for public review in accordance with requests made under the Maryland Public Information Act.

.08 Annual Verification and Reporting.

A. All trades involving agricultural credits certified by the Department require, at minimum, annual credit verification and reporting. Inspections will be scheduled as appropriate to practice type.

B. A person who buys certified credits shall employ a Department-approved verifier who does not hold an interest in the agricultural operation generating the credits or was not involved in the original application or qualification of the credits.

C. Following the site visit to the agricultural operation, the verifier shall provide the following to the Department:

(1) Information as required on a Verification Report form; and

(2) Information following an inspection and review of the records for the agricultural operation including:

(a) Review of the current NMP and documentation that it continues to be implemented in accordance with COMAR 15.20.07 and 15.20.08;

(b) Review of the current SCWQP and documentation that it continues to be implemented and addresses all nitrogen, phosphorus, and sediment runoff and emission issues as specified;

(c) Documentation that agricultural operation and BMPs implemented continue to meet baseline compliance and that all credit generating practices continue to be operated and maintained in accordance with the terms of the trading contract and the requirements of this chapter; and

(d) Confirmation that no deficiencies exist and no corrective measures are needed or a detailed description of deficiencies and required corrective actions.

D. The Department, Maryland Department of the Environment, the buyer and the seller, and the owner or operator shall receive a copy of the report prepared by the verifier conducting of any inspection and records review within 30 days.

E. The Department may issue a corrective action order which allows a time period for repairs or other remedies to bring any deficiencies into compliance. The Department may require additional inspections and written substantiations that corrective measures have been taken. Any such action or actions by the Department does not preclude the Maryland Department of the Environment from exercising its authority when agricultural credits are incorporated into issued discharge permits.

F. Within 30 days of receiving a copy of the report, an owner or operator may dispute information in the report that owner or operator believes is in error or does not accurately represent the condition or management of the operation and may address these concerns in writing with the Department with a copy to the verifier.

.09 Departmental Review.

A. The Department shall schedule site reviews and records inspection on at least 10 percent of all traded credits annually.

B. The Department shall assign an approved verifier who:

(1) Meets qualifications provided in Regulation .10 of this chapter; does not hold an interest in the agricultural operation generating certified credits; and

(2) Is not the same individual who conducted either the assessment or verification of the operation at the time of application.

C. Verifiers assigned by the Department to conduct interim inspections and reviews shall:

(1) Contact the operator in advance of the inspection to make an appointment so the operator or his representative can be present and have records available for the review;

(2) Present a photo identification at the time of the inspection as proof of credentials; and

(3) Adhere to all biosecurity and other measures necessary to protect health and safety at the operation.

D. An owner or operator shall receive a copy of the report prepared by the verifier conducting the inspection and review of the records within 30 days of the site visit;

E. An owner or operator may dispute information in the report that the operator believes is in error or does not accurately represent the condition or management of the operation and may address these concerns in writing with the Department and copy the verifier within 30 days of receiving a copy of the report.

F. The Department may conduct an investigation that may include additional inspections to determine the actual condition and management of the operation.

.10 Verifier Approval Protocol.

A. An individual may not be approved to act as a verifier as provided by this chapter unless the individual meets the following requirements to be established by the Department:

- (1) Education and experience;
- (2) Training; and
- (3) Continuing education.

B. The Department may approve a verifier who meets the following eligibility requirements:

(1) Has 3 or more years of experience developing SCWQPs or qualifies as a U.S. Department of Agriculture, Natural Resource Conservation Service Conservation Planner level II;

(2) Is certified in Maryland to prepare NMPs in accordance with applicable Department regulations COMAR 15.20.04; and

(3) Has completed Department training in the use of the MNTT.

C. A verifier may only remain eligible to perform verifications by completing at least 6 hours of Department approved training within the first year, and 12 hours thereafter every 3 years.

D. After the opportunity for a hearing, the Department may deny, suspend, or revoke the approval of any verifier who:

- (1) No longer meets eligibility requirements;
- (2) Violates any of the regulatory requirements of this chapter;
- (3) Provides the Department with any misleading, false, or fraudulent report;
- (4) Fails to promptly provide any report or any record required to be kept by this chapter;
- (5) Fails to meet the continuing education requirements for verifiers;
- (6) Is determined to be negligent or incompetent; or
- (7) Fails to act in such a manner that the Department determines provides other good cause to deny, suspend, or revoke approval.

.11 Enforcement.

A. Suspension or Revocation of Credit Certification.

(1) The Department may suspend or revoke certification of an agricultural nonpoint source nutrient credit for any violation of Agriculture Article, Title 8, Subtitle 9, Annotated Code of Maryland, any violation of this chapter, or the following:

(a) Failure to adopt or install any practice or activity certified pending implementation in conformity with standards and specifications or to differ substantially from the original credit generation proposal;

(b) Failure to maintain any practice or activity as required by the operation's SCWQP;

(c) Failure to take timely steps to remedy any deficiencies reported by the verifier, in response to a corrective action order by the Department, or as a result of a Department review;

(d) Failure to sell credits during their certified lifespan; and

(e) Performance of any other action or failure to act in such a manner that the Department determines provides other good cause to suspend or revoke the certification.

(2) Notice of the suspension or revocation of credit certification will be issued with an effective date to the credit owner and all other affected parties and will also be published on the trading program website;

(3) An owner or operator may dispute findings of violations or failures by requesting an opportunity to be heard in writing to the Secretary of Agriculture within 30 days of receiving notice; and

(4) Suspension or revocation of credit certification does not preclude any other punitive action that may be taken by another public or private entity.

JOSEPH BARTENFELDER
Secretary of Agriculture